IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

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In re Application of: : Examiner: Trevor McGraw

Ian FAYE et al.

For: DOSING DEVICE : Art Unit: 3752

Filed: April 12, 2006 :

: Serial No.: 10/534,108 :

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Signature: <u>/Elizabeth Tretter/</u> Elizabeth Tretter

REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

SIR:

This paper is responsive to the "Examiner's Answer" dated August 21, 2008 in connection with the above-captioned application.

1. STATUS OF CLAIMS

Claims 1 to 18, and 30 have been canceled.

Claims 27, and 31 to 35 have been withdrawn from consideration.

Claims 19 to 26, 28, 29, and 36 to 39 are pending and being considered.

Claims 19, 20, 22 to 26, 28, 29, 36, and 38 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 2,933,259 ("Raskin").

Claim 19, 21, and 37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Raskin and U.S. Patent No. 6,311,950 ("Kappel et al.").

2. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 19, 20, 22 to 26, 28, 29, 36, and 38 are anticipated under 35 U.S.C. § 102(b) by Raskin.

B. Whether claims 19, 21, and 37 are unpatentable under 35 U.S.C. § 103(a) over the combination of Raskin and Kappel et al.

3. ARGUMENT

A. Rejection of Claims 19, 20, 22 to 26, 28, 29, 36, and 38 Under 35 U.S.C. § 102(b)

Claims 19, 20, 22 to 26, 28, 29, 36, and 38 stand rejected under 35 U.S.C. § 102(b) as anticipated by Raskin. It is respectfully submitted that Raskin does not anticipate the present claims for at least the following reasons.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

Claim 19 relates to a dosing device that includes, *inter alia*, a nozzle body, adjoining the metering conduit, having spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber, in which the metering conduit has a number of points of reduced wall thickness that decrease the thermal conductivity of the metering conduit.

Raskin does not identically disclose, or even suggest, that a nozzle body adjoining a metering conduit has spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber. Specifically, the inner element 19 of Raskin appears analogous to a nozzle body of the present application, the inner pipe 4 of Raskin appears analogous to a metering conduit of the present application, and the exterior of the outer element 20 (opposite inner element 19) of Raskin appears analogous to a metering chamber of the present application. Thus, the bores 21 of the inner element 19 of Raskin appear analogous to spray discharge openings of the present application. (Raskin, col. 4, lines 13 to 32; and Figures 1 and 4). As a result, referring to, for example, Figure 4 of Raskin, bores 21 of the inner element 19 (spray discharge openings of the nozzle body) merely provide fluid communication between the inner pipe 4 (metering conduit) and the gap 24. However, the bores 21 of the inner element 19 (spray discharge openings of the nozzle body) plainly do not provide direct fluid communication between the inner pipe 4 (metering conduit) and the exterior of the outer element 20 (metering chamber). That is, both the gap

24 and the outer element 20 are positioned between the bores 21 of the inner element 19 (spray discharge openings of the nozzle body) and the exterior of the outer element 20 (metering chamber), thereby preventing the bores 21 (spray discharge openings) from providing direct fluid communication between the inner pipe 4 (metering conduit) and the exterior of the outer element 20 (metering chamber). Therefore, it is plainly apparent that the bores 21 of Raskin do not provide <u>direct fluid communication</u> between the metering conduit and a metering chamber, as provided for in the context of claim 19.

The Examiner's Answer and Final Office Action appear to focus on whether the fluid flow direction is "unobstructed", "unimpeded", or "unhindered." (Examiner's Answer, pp. 5 to 7; Final Office Action, pp. 5 and 6). However, claim 19 does not refer to such features, but instead discloses a nozzle body adjoining a metering conduit having spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber. In this regard, the Examiner's Answer at page 6 asserts that "openings '21' and '22' provide a direct line of fluid communication into the metering chamber." However, as more fully set forth above, only bores 21 of the inner element 19 of Raskin appear analogous to spray discharge openings of a nozzle body of the present application because, as provided for in the context of claim 19, the nozzle body adjoins the metering conduit (the inner element 19 of Raskin adjoins the inner pipe 4). In contrast, the outer element 20 of Raskin does not adjoin the inner pipe 4, and thus, the outer element 20 of Raskin is not a nozzle body, as provided for in the context of claim 19. Accordingly, the bores 22 of the outer element 20 are not analogous to spray discharge openings of a nozzle body, as provided for in the context of claim 19.

Further, it is respectfully submitted that the features of claim 19 are positive structural limitations, as more fully set forth above. Thus, the mere assertion and accompanying discussion in the Examiner's Answer at page 6 that "Raskin performs the same function" and "require[s] an enclosed space to facilitate combustion" does not identically disclose, or even suggest, all of the claimed features of claim 19. Therefore, it is respectfully submitted that Raskin does not identically disclose, or even suggest, that <u>a nozzle</u> body adjoining a metering conduit has spray discharge openings which provide direct fluid communication between the metering conduit and a metering chamber.

In addition, Raskin does not identically disclose, or even suggest, that a metering conduit has a number of points of reduced wall thickness that decrease the thermal conductivity of the metering conduit. The Examiner's Answer and the Final Office Action contend that "[i]n viewing Figure 4 of Raskin, one can clearly see that reference number '19'

has a number of points of reduced wall thickness." (Examiner's Answer, pp. 7 to 8; Final Office Action, p. 6). It is respectfully submitted that inner element 19 of Raskin does not constitute a metering conduit in the present context. At most, inner element 19 of Raskin may correspond to a nozzle body, as more fully set forth above. Further, inner element 19 of Raskin may not correspond to both a nozzle body and a metering conduit, as implied in the Examiner's Answer at pages 7 and 8, because as provided for in the context of claim 19, a nozzle body adjoins a metering conduit. In this regard, Raskin states that "inner member 19 is connected to a steam or air supply pipe (not shown)." (Raskin, col. 4, lines 23 to 24). It is respectfully submitted that this supply pipe may correspond to a metering conduit, but the supply pipe is neither shown nor further described. Referring to Figure 1 of Raskin, inner pipe 4 may be analogous to the supply pipe referred to in Figure 4. However, the wall thickness of inner pipe 4 appears to be substantially constant along the length of inner pipe 4. Thus, it is plainly apparent that neither the inner pipe 4 nor the supply pipe, which is neither shown nor described, of Raskin has a number of points of reduced wall thickness, as provided for in the context of claim 19. Therefore, Raskin does not identically disclose, or even suggest, that <u>a metering conduit has a number of points of reduced wall thickness</u> that decrease the thermal conductivity of the metering conduit.

In view of the foregoing, it is respectfully submitted that Raskin does not identically disclose, or even suggest, all of the features included in claim 19. Accordingly, it is respectfully submitted that Raskin does not anticipate claim 19.

As for claims 20, 22 to 26, 28, 29, 36, and 38, which ultimately depend from claim 19 and therefore include all of the features in claim 19, it is respectfully submitted that Raskin does not anticipate these dependent claims for at least the same reasons more fully set forth above.

In view of all of the foregoing, reversal of this rejection is respectfully requested.

B. Rejection of Claims 19, 21, and 37 Under 35 U.S.C. § 103(a)

Claims 19, 21, and 37 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Raskin and Kappel et al. It is respectfully submitted that the combination of Raskin and Kappel et al. does not render unpatentable claims 19, 21, and 37 for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v.

<u>Datapoint Corp.</u>, 908 F.2d 931, 934 (Fed. Cir. 1990), <u>cert. denied</u>, 111 S. Ct. 296 (1990); <u>In re Bond</u>, 910 F.2d 831, 834 (Fed. Cir. 1990). In addition, as clearly indicated by the Supreme Court, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. <u>See KSR Int'l Co. v. Teleflex, Inc.</u>, 127 S. Ct. 1727 (2007). Further, the Supreme Court in <u>KSR</u> noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. M.P.E.P. §2143.

As more fully set forth above, Raskin does not disclose, or even suggest, all of the features recited in claim 19. Kappel et al. are not relied upon for disclosing or suggesting the features of claim 19 not disclosed or suggested by Raskin. Indeed, it is respectfully submitted that Kappel et al. do not disclose, or even suggest, the features of claim 19 not disclosed or suggested by Raskin and do not cure the critical deficiencies noted above with respect to Raskin. Therefore, it is respectfully submitted that the combination of Raskin and Kappel et al. does not render unpatentable claim 19.

Claims 21 and 37 ultimately depend from claim 19 and therefore include all of the features recited in claim 19. As more fully set forth above, the combination of Raskin and Kappel et al. does not disclose, or even suggest, all of the features recited in claim 19, from which claims 21 and 37 ultimately depend, and does not render unpatentable claim 19. Therefore, it is respectfully submitted that the combination of Raskin and Kappel et al. does not render unpatentable claims 21 and 37, which ultimately depend from claim 19. *In re Fine, supra* (any dependent claim that depends from a non-obvious independent claim is non-obvious).

In view of all of the foregoing, reversal of this rejection is respectfully requested.

4. <u>CONCLUSION</u>

For at least the reasons indicated above and those set forth in the Appeal Brief, Appellants respectfully submit that the art of record does not disclose or suggest the subject matter as recited in the claims of the above-identified application. Accordingly, it is respectfully submitted that the subject matter as set forth in the claims of the present application is patentable.

In view of all of the foregoing, reversal of all outstanding rejections is therefore respectfully requested.

Respectfully submitted,

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